FACULTY WILLINGNESS TO PROVIDE ACCOMMODATIONS AND COURSE ALTERNATIVES TO POSTSECONDARY STUDENTS WITH LEARNING DISABILITIES

Michael E. Skinner

Special Education College of Charleston

The number of students with documented learning disabilities (LD) enrolled in postsecondary settings has increased steadily over the past 20 years. Providing reasonable accommodations significantly increases the probability of success for these students. The present study investigated the willingness of postsecondary instructors to provide accommodations and alternative courses. Results indicated that instructor willingness to provide accommodations and their support of course alternatives varied as a function of school affiliation (e.g., education, mathematics and science, etc.), rank, and specific accommodation requested. Based on the results of this study and previous literature, programmatic suggestions are provided for facilitating the provision of academic adjustments to student with LD in postsecondary settings.

Vignette Number 1

Sarah was well aware of her need for extended time on examinations. Her weaknesses in basic reading skills, reading comprehension, and reading fluency were well documented in middle school and high school. She received extended time on the state exit examination and the SAT. One of Sarah's first stops when she arrived on campus as a freshman was Disability Services (DS). Disability Services provided her with the letter she needed to obtain extended time on examinations in her courses. Although initially approaching professors with some degree of trepidation, Sarah found that all of her professors were receptive to the requirements stipulated by DS. All of them made the required arrangements while communicating respect for Sarah as a student with equal standing with her peers.

Vignette Number 2

Written expression always presented significant difficulties for Mark. He received resource services for students with specific learning disabilities (LD) throughout much of his secondary school career. Mark was permitted to tape record lectures and typically completed essay tests using a word processor in an isolated location. As appropriate, he was also permitted extended time to complete examinations. He purposely chose a college with a comprehensive Office of Disability Services. Documentation in hand, Mark made appointments with all of his professors to request accommodations approved by DS. Although two of his professors were receptive to his requests, two professors made it clear that, although they knew that they were obligated to provide the accommodations, they felt that these kinds of adjustments gave Mark an unfair advantage. It was clear to Mark that, whatever grade he earned in these classes, it would not be comparable to students who received the same grade, at least in the eyes of these two professors.

The rights of students with disabilities in postsecondary settings are protected by Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990 (ADA). Although these laws do not require programmatic changes in postsecondary curriculums, they do require accessibility and nondiscrimination for *otherwise qualified* students. Furthermore, once a disability is documented and disclosed by a student, postsecondary institutions are required to provide auxiliary aids and services (ADA, Title II; Rehabilitation Act of 1973, Section 504). The academic *adjustments* provided by postsecondary institutions for students with disabilities must ensure equal educational opportunity. Examples of accommodations that are frequently provided for students with learning disabilities (LD) include books on tape, note-takers, readers, extended time for examinations, use of word processors

during examinations, and permission to take an examination at an alternative location. While not required by law, many schools also provide alternatives coursework for satisfying mathematics and foreign language requirements.

Although legislative mandates provide the legal impetus for appropriate academic adjustments for students with disabilities, instructors in postsecondary settings vary in their reactions to formal student requests (Bigaj, Shaw, & McGuire, 1999; Bourke, Strehorn, & Silver, 2000; Burgstahler, Duclos, & Turcotte, 2000; Dodd, Hermanson, Nelson, & Fischer, 1990; Houck, Asselin, Troutman, & Arrington, 1992; Matthews, Anderson, & Skolnick, 1987; Nelson, Dodd, & Smith, 1990; Norton, 1997; Rieck & Wadsworth, 2005; Sweener, Kundert, May, & Quinn, 2002; Vogel, Leyser, Wyland, & Brulle, 1999). As illustrated by Vignette 1, many faculty treat student accommodation requests in a cooperative and supportive manner. However, as exemplified by Vignette 2 above, some postsecondary instructors grant academic adjustments unwillingly; adjustments that they may view as providing students with learning disabilities with an unfair advantage over their peers without learning difficulties or as in conflict with discipline-specific student outcomes.

Perceptions of Postsecondary Faculty toward Academic Accommodations

Existing research indicates that postsecondary instructors' perceptions of academic accommodations for students with disabilities vary contingent upon a variety of factors. Nelson et al. (1990), for example, found that instructors in their sample indicated an overall willingness to provide accommodations to students with LD. However, their survey responses also indicated that perceptions varied by college. Faculty from the College of Education were more supportive of all accommodations as compared with those in the College of Business and the College of Arts and Sciences.

Although expressing a high degree of willingness to provide exam and instructional accommodations as a group, results of Vogel et al.'s (1999) study indicated a variety of factors that influenced faculty willingness to provide accommodations to students with LD. These included age, discipline, teaching experience, highest degree earned, and rank. Older faculty, for example, were more willing than younger faculty to provide an examination in an alternative format. Education faculty were more willing than faculty from other disciplines to provide examination accommodations. Faculty without doctoral degrees were more willing than their terminal degree counterparts to provide accommodations in general. Finally, lower ranking faculty (i.e., instructors and assistant professors) were more willing than faculty of higher ranks to provide students with several accommodations. Furthermore, Bigaj et al. (1999), surveying community-technical college faculty, found a positive relationship between gender and willingness to provide accommodations to students with LD. Specifically, females were more likely to use instructor-centered accommodations than males. Results of this study also indicated a positive association between faculty training on LD-related issues and willingness to provide accommodations. Similarly, Bourke et al. (2000) identified multiple factors that influenced faculty perceptions of accommodations. Their results indicated that: (a) as the number of students in instructors' classes requesting accommodations increased, positive perceptions of accommodations decreased; (b) belief in the efficacy of accommodations in relation to the academic success of students with LD was positively associated with attitude toward providing accommodations; (c) greater understanding of the necessity of accommodations was positively related to willingness to provide accommodations; (d) perceived level of support from disability services on campus was associated with positive views of accommodations; and (e) perceived support from academic departments was positively associated with willingness to provide accommodations.

Sweener, et al. (2002) investigated *levels of comfort* with providing accommodations to students with LD among faculty at a community college. Overall faculty responses indicated neutral levels of *comfort* with providing accommodations. The neutrality of faculty perceptions found in this study stands in contrast to other research (e.g., Matthews, et al., 1987; Nelson, et al., 1990; Vogel, et al., 1999; Houck, et al., 1992; Norton, 1997) that demonstrated a relatively high degree of overall willingness of faculty to provide accommodations. However, Sweener and his colleagues found wide variability in responses as a function of type of accommodation. Faculty were very receptive, for example, to accommodations that allowed students extended time or a change of setting for test taking. However, responses indicated significantly lower levels of acceptance of accommodations that required extra instructor time and effort or were more intrusive programmatically. Examples of items with lower acceptance rates included: (a) course substitutions; (b) withdraw from course after official date; (c) increased frequency of examinations; (d) extra credit assignments; and (d) no deductions for writing mechanics (i.e., grammar, spelling, etc.). Matthews, et al. (1987) also found less acceptance for adjustments that differed significantly from standards expected of other students.

In summary, although the existing literature suggests an overall willingness on the part of many instructors to provide documented accommodation to postsecondary students with LD, some studies also indicate neutral and, in a few cases, negative faculty views of some accommodations under some circumstances. Furthermore, faculty willingness to provide instructional and examination accommodations to postsecondary students with LD appears to be a function of a variety of factors. Variables that may influence perceptions of accommodations include rank, degree, the nature of the accommodation, academic discipline, age, years of teaching experience, gender, number of students requesting accommodations, faculty understanding of the accommodation, and perceived support from disability services and the academic department. Finally, no study was located that specifically investigated faculty perceptions of course alternatives provided to students with LD.

Need for and Purpose of the Present Study

The number of students with LD entering postsecondary education has increased dramatically over the past 20 years (Norlander, Shaw, & McGuire, 1990; National Center for Education Statistics, 1996 & 1999). However, many of these students appear to be ill-prepared for the demands presented by a postsecondary setting. Murray, Goldstein, Nourse, and Edgar (2000), for example, reported that 80% of students with LD enrolled in postsecondary programs had not graduated five years after high school completion. This compared to a non-graduation rate for students without LD of only 56%. Providing appropriate accommodations and, when deemed appropriate by institutions, course alternatives, are essential elements for success in postsecondary programs for students with LD. Furthermore, it is imperative that we continue to monitor the accommodation process.

The purpose of the present study was to add to the existing accommodation literature summarized above. A particularly novel aspect of the study was the investigation of faculty views relating to the provision of course alternatives to mathematics and foreign language requirements. Specifically, the study was designed to: (a) determine the "willingness" of college faculty to provide instructional and examination accommodations to students with documented learning disabilities; and (b) determine the level of faculty agreement with the policy of providing mathematics and foreign language course alternatives to students with documented disabilities in language- and mathematics-related areas. Specific research questions investigated included:

- 1. How willing are college faculty to provide instructional and examination accommodations?
- 2. Does faculty willingness to provide accommodations vary by academic school or rank?
- 3. Do faculty agree with providing mathematics and foreign foreign language course alternatives to students with documented learning disabilities?
- 4. Does faculty level of agreement with course alternatives vary by academic school or rank?

Method

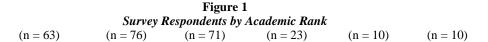
Participants and Setting

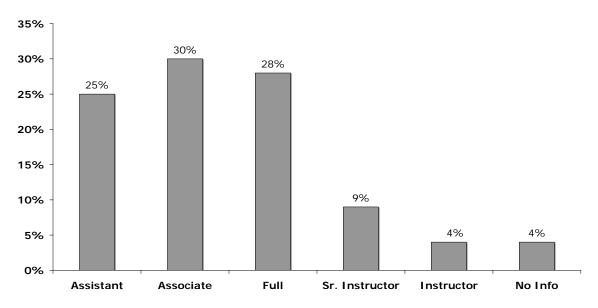
Surveys were mailed to all 483 roster faculty teaching at a mid-sized, liberal arts institution located in the southeastern portion of the United States. Two-hundred-and-fifty-three faculty members returned the survey producing a response rate of 52%. The mean number of years of teaching experience of respondents was 15, with a range of 3 to 33 years. Faculty reported having a mean of 10 students with learning disabilities who required at least one accommodation in their classes during the past five years. The median was 13 students over the five-year period. Only 15 of the 253 respondents either did not respond to this question or indicated that they had no students requiring accommodations over the past five years.

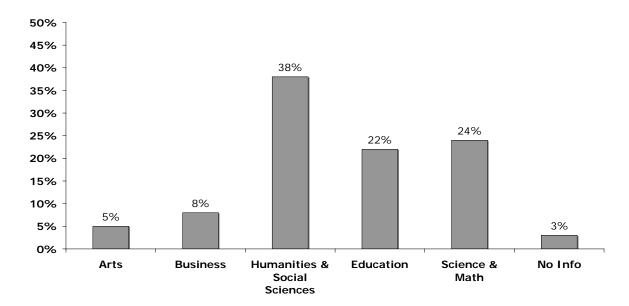
Figure 1 illustrates the percentage of respondents by rank. Although survey participants were well represented and fairly evenly distributed at full, associate, and assistant professor ranks, considerably fewer responses were obtained from instructors.

Figure 2 shows faculty respondents by academic school affiliation. The Schools of Education, Science and Mathematics, and Humanities and Social Sciences were well represented in the sample.

Considerably fewer responses were received from faculty in the School of the Arts and the School of Business.







Instrumentation

A survey was designed by the researcher to collect three types of data: background information, willingness to provide specific accommodations, and level of agreement with providing course alternatives for the college's general education mathematics and foreign language requirements. Background data included: (a) years teaching at the college level; (b) academic rank; (c) school and department; and, (d) an estimate of the number of students with learning disabilities requiring accommodations in their classes over the past five years. Respondents were asked to rate their willingness to provide specific examination and instructional adjustments (See Table 1.) on a five-point Likert scale. Response choices included: very unwilling, unwilling, neutral, willing, and very willing.

Table 1
Examination and Instructional Accommodations Evaluated by the Survey

Examination Accommodations	Instructional Accommodations
Extended Time on Tests	Tape-record Class Sessions
Alternate Test Location	Use of a Student Note-taker
Alternate Test Format	Use of a Laptop Computer for
(e.g., verbal versus written)	Taking Notes
Use of a Calculator during Exams	Copy of Instructor's Notes Provided to Student
No Penalty for Writing Mechanics	
	Extended Assignment Deadlines
Use of a Reading During Exams	
(e.g., another student reads the exam)	Use of Alternative Assignments
	(e.g., oral presentations in place
Use of a Scribe during Exams	of written assignments)
(i.e., student dictates responses)	
XX	Extra Credit (when option is not
Use of a Laptop Computer for	available to other students)
In-class Written Assignments and	
Exams	Syllabus Provided Early

Level of agreement with providing course alternatives was evaluated using the following question:

Students with mathematics and/or foreign language-based learning disabilities are
currently permitted, with documentation, to substitute alternative courses for the
College's mathematics and/or foreign language requirements. Circle the response
choice that best reflects your attitude toward this policy.

Response choices to this question included: strongly disagree, disagree, neutral, agree, and strongly agree. Survey respondents were encouraged to provide narrative comments at the conclusion of both the accommodation willingness and course alternative sections. The instrument was validated and revised extensively based on feedback from the Director of Disability Services, special education faculty, and special education graduate students.

Procedures and Data Analysis

One week before distribution of the surveys, an e-mail was sent to all faculty. This e-mail briefly described the purpose of the study and urged faculty to respond. Surveys were sent by campus mail to all 483 roster faculty and requested that they return the completed survey within two weeks. Return envelopes, with no identification other than the researchers campus address, were included with the survey. This ensured faculty anonymity and confidentiality. Initially, 187 faculty members returned the completed survey instrument. An additional e-mail was sent to all roster faculty three weeks after the initial mailing. This e-mail reminded faculty that they had received a survey and again urged them to return it. Sixty-six additional serves were received within a two week period. As mentioned previously, this created a total of 253 respondents or 52% of the faculty.

Responses were converted to numerical data for analysis purposes (e.g., very willing = 5, willing = 4, strongly agree = 5, agree = 4, etc.). Mean response rates were rounded in order to convert them back into nominal data. For example, the mean numerical response to willingness to provide students with "extended time" was 4.67. This was rounded up to 5.00 or "very willing." Similarly, the mean level of agreement with providing *course alternatives* was 3.27. This figure was rounded down and to place the response in the *neutral* category. Data were analyzed descriptively and represented graphically using the data analysis and charting functions of Microsoft Excel.

Results

Accommodations

<u>Overall Willingness – Examination Accommodations</u>. Figure 3 illustrates overall faculty responses to the examination accommodations portion of the survey. Using the rules for converting numerical data

into categories described in the previous section, faculty were either *very willing* or *willing* to provide four of the eight examination accommodations, including extended time, alternative location, calculator, and laptop computer. Faculty responses indicated *neutral* rankings for alternate format, writing mechanics, reader, and scribe. No examination accommodation received a mean ranking in the *unwilling* or *very unwilling* categories.

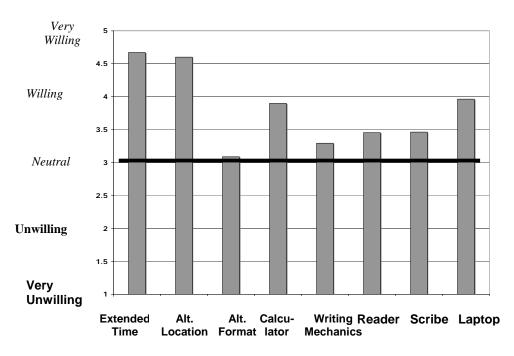


Figure 3
Faculty Willingness to Provide Examination Accommodations

Overall Willingness – Instructional Accommodations. Data describing faculty willingness to provide instructional accommodations is provided in Figure 4.

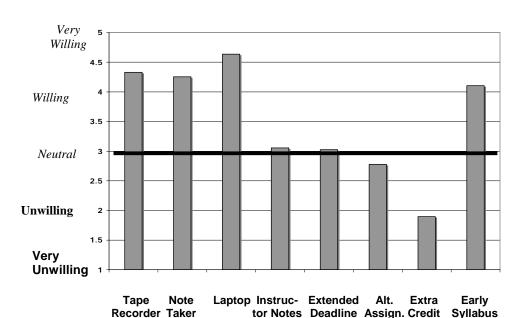


Figure 4
Faculty Willingness to Provide Instructional Accommodations

Responses indicated a willingness to provide accommodations involving tape recorders, note-takers, laptop computers, and early syllabi. Conversely, responses indicated an unwillingness to provide extra credit. Finally, faculty expressed neutral perceptions of the use of instructor notes, extended deadlines, and alternative assignments

Willingness by Rank. In addition to analyzing overall faculty willingness to accommodate students with LD, responses were also evaluated by rank.

Figure 5
Faculty Willingness to Provide Accommodations by Rank

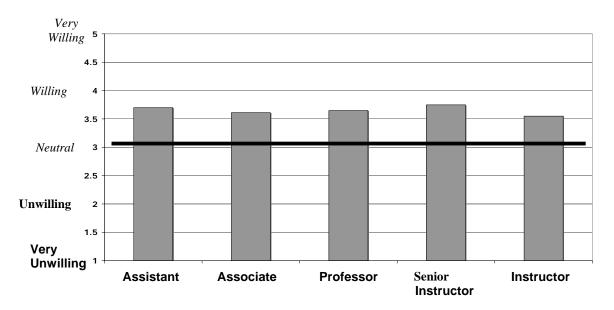
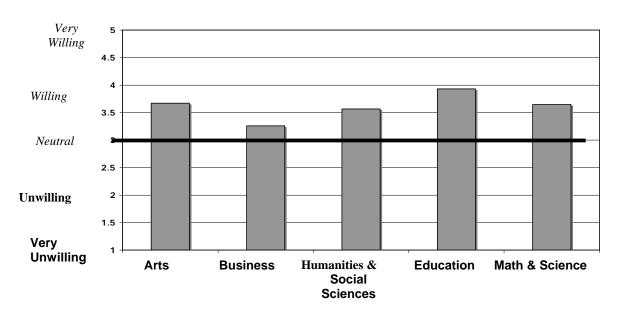


Figure 5 presents these data. Responses indicated a willingness to provide accommodations across all academic ranks, with very little variation.

Willingness by School. Figure 6 provides the data for willingness to provide accommodations by academic school. With the exception the School of Business, faculty from all schools expressed a willingness to provide accommodations.

Figure 6
Faculty Willingness to Provide Accommodations by Academic School



Responses from the School of Business indicated *neutral* (i.e., 3.26) perceptions of accommodations. Conversely, responses from faculty in the School of Education indicated the highest level of willingness (i.e., 3.93) of any school.

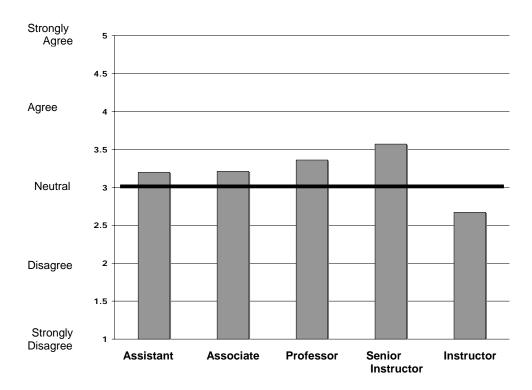
Course Alternatives

Overall Agreement. Mean faculty agreement with the provision of mathematics and foreign language alternative courses was 3.27 with a standard deviation of 1.2. When rounded as described earlier, this is equivalent to a rating of *neutral*.

Agreement by Rank. Figure 7 provides a summary of the data relating to faculty agreement with alternative mathematics and foreign language courses by academic rank.

Figure 7

Faculty Agreement with Allowing Students to Take Alternative Courses to Fulfill Mathematics and
Foreign language Requirements by Rank



Allthough some variation was evident, mean response rate for all ranks fell in the *neutral* range. Senior instructors indicated the highest level of agreement (3.46) while instructors ratings were the lowest (2.67)

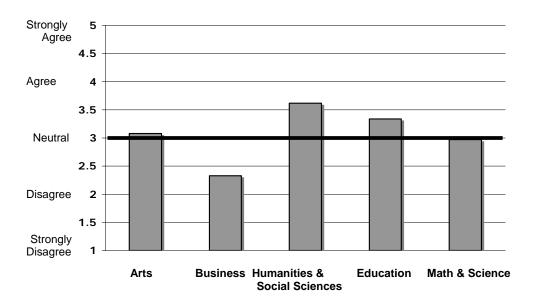
Agreement by School. Data describing mean agreement with course alternatives by academic school are provided in Figure 8. The mean rating of faculty in the School of Humanities and Social Sciences was the highest (3.62). This was the only school to reach (when rounded to 4.0) the level of agree. Ratings of faculty from the School of the Arts, School of Education, and School of Mathematics and Science were in the *neutral* range. Finally, School of Business faculty rated the provision of alternatives the lowest. Their mean rating of 2.33 was in the *disagree* range. (see Fig 8 Next page)

Discussion

Examination and Instructional Accommodations

Faculty responses to the accommodations portion of the survey in the present study indicated mixed levels of willingness to provide examination and instructional accommodations to students with LD. Examination accommodations that received *willing* or *very willing* ratings included extended time, alternative location, use of a calculator; and use of a laptop computer. Faculty were *neutral* in their

Figure 8
Faculty Agreement with Allowing Students to Take Alternative Courses to Fulfill Mathematics and
Foreign language Requirements by Academic School



willingness to provide testing in an alternative format, apply no penalties for writing mechanics, and allow students to use a scribe or reader. Responses to instructional accommodations were also mixed. Faculty were willing to allow students to tape record their classes, use note-takers, use laptop computers, and provide syllabi early. However, they were neutral when it came to providing students with instructor notes, extended deadlines, and alternative assignments. Faculty expressed an unwillingness to provide extra credit. These results are consistent with previous research reports that found neutral (e.g., Sweener, et al., 2002) to positive (e.g., Matthews, et al., 1987; Nelson, et al., 1990; Vogel, et al., 1999, Houck, et al., 1992; Norton, 1997) perceptions of accommodations among faculty in postsecondary settings.

Willingness to provide academic and examination adjustments varied substantially by specific accommodation in the present study, a finding supported by Sweener and his colleagues (2002). Furthermore, Sweener postulates that the variability in willingness to implement accommodations may largely be a function of pragmatics. That is, faculty are less likely to be willing to implement relatively intrusive accommodations that require extra instructor time and effort, such as alternative assignments and testing in an alternative format. Conversely, they are more supportive of adjustments that require minimal instructor time and effort such as testing in an alternative location and providing extended time to complete an examination. Deviation from established course standards may also affect willingness to provide accommodations. Matthews, et al. (1987), for example, found less acceptance for accommodations that deviated substantially from standards established for other students.

The present study also investigated variability in willingness to provide accommodations by faculty rank and academic school. Virtually no variation in willingness was noted by rank. Faculty at all ranks -- including assistant professor, associate professor, full professor, senior instructor, and instructor -- expressed an overall willingness to provide accommodations. At first glance, these results seem to stand in contrast to Vogel, et al.'s (1999) findings indicating that lower ranking faculty (i.e., instructors and assistant professors) were more willing than higher ranking faculty to provide several accommodations, including allowing students access to copies of their overheads and lecture outlines. They were also more likely than their higher-ranking counterparts to be willing to paraphrase examination questions. However, Vogel and her colleagues noted no significant differences as a function of rank on a myriad of other accommodations, reflecting results consistent with the present study. That is, rank did not play a major role in determining faculty willingness to provide examination and academic adjustments.

Some minor variation in willingness to provide accommodations was noted as a function of academic school. Responses from faculty in four of the five academic schools on campus -- including Arts, Humanities and Social Sciences, Education, and Mathematics and Science -- indicated a general willingness to provide accommodations. However, responses from faculty in the School of Business fell in the "neutral" range. Conversely, School of Education faculty expressed the highest mean rating of willingness to provide accommodations. These results are supported by previous studies (e.g., Neslon, et al., 1990; Vogel, et al., 1999). Qualitative analysis of responses to the request for additional comments sheds light on the reasons for these differences. Faculty from the School of Business routinely expressed concern over the effects that accommodations might have on their students' mastery of course content and eventual successful performance on varying field-specific entry level examinations. Conversely, typical education faculty comments, despite a plethora of certification exams in their own fields, communicated concerns that they were providing appropriate accommodations to meet individual student needs. That is, business faculty were much more likely to voice concern for programmatic outcomes whereas education faculty focused on individualizing instruction. These are far from surprising results given the nature of the two disciplines and the backgrounds of faculty.

Mathematics and Foreign Language Course Alternatives

As mentioned previously, faculty responses to the survey indicated an overall *neutral* perception of providing alternative courses to students to satisfy mathematics and foreign language requirements. As was the case with responses to the accommodations portion of the survey, rank had minimal effect on course alternative agreement. Faculty at the assistant, associate, and full professor levels ranked the provision of course alternatives at the *neutral* level. Although some variation existed between senior instructors and instructors, the low number of participants (See Figure 1.) from these two groups make definitive conclusions difficult to draw.

Conversely, variations in agreement with course alternatives based on school affiliation did emerge. Although responses from four of the schools indicated either *neutral* (i.e., arts, education, and mathematics and science) or *agree* (humanities and social sciences) mean response levels, the School of Business, similar to results relating to willingness to provide accommodations, again proved to be the exception. The mean response rate from School of Business faculty placed them in the *disagree* range. Again, a qualitative analysis of comments from business faculty revealed a concern for the integrity of their programs, including, as mentioned previously, effects that course substitutions might have on mastery of essential knowledge and skills needed for success in the business world. Although very little research exists in this area, Sweener, et al. (2002) found lower acceptance rates for *course substitutions* among all faculty in his sample as compared to other academic adjustments. Similarly, faculty surveyed by Matthews (1987) indicated less acceptance for *adjustments* that differed significantly from standards expected for other students.

Summary, Conclusions, And Implications For Practice

Although faculty as a whole expressed a willingness to provide examination and academic accommodations to students with LD in the present study, many adjustments received *neutral* ratings, with willingness to provide extra credit ranked as *unwilling*. In addition to variation by specific accommodation, differences in willingness were also noted by school (i.e., School of Business – *neutral*; other schools – *willing*). Agreement with providing alternatives to mathematics and foreign language course requirements was also mixed. Although the mean rating for all faculty was in the *neutral* to *agree* ranges, faculty from the School of Business *disagreed* with the provision of course alternatives.

At first glance, one might view these results, generally consistent with previous research, as positive. That is, faculty seem to be either neutral or generally supportive of many accommodations and course alternatives. However, the frequency of *neutral* responses for accommodations and the lukewarm faculty attitudes toward course alternatives are cause for concern. For a population of students who already struggle with self-advocacy and self-determination (Ginsberg, Gerber, & Reiff, 1994; Schloss, Alper, & Jayne 1993; Raskind, Goldberg, Higgins, & Herman, 1997; Skinner, 1998), instructors who provide accommodations in a *neutral* or *unwilling* manner decrease the likelihood that students will assert themselves by requesting appropriate and documented accommodations. For example, in her study of community college students with LD, Norton (1997) found that, although students made use of accommodations when provided, many reported apprehensiveness when asking for academic adjustments. The issue of instructor willingness to provide accommodations and support for course alternatives becomes even more important when the positive relationship between the likelihood of

success in postsecondary settings and the provision of academic adjustments is taken into consideration. In his descriptive study of over 700 successful (i.e., graduates) and unsuccessful (i.e., non-graduates) college students with LD, for example, Skinner (1999) found that students who qualified for and took advantage of course alternatives and accommodations were significantly more likely to graduate. Furthermore, results of a qualitative study of 20 college graduates with LD corroborate the importance of accommodations and course alternatives to successful passage through postsecondary programs (Skinner, 2004).

Although progress is evident over the past 10 to 15 years, our ultimate goal should be a high degree of willingness to provide students with LD *reasonable* accommodations and course alternatives among all faculty. When documented by rigorous supporting evidence and scrutinized by a disabilities services office, students should feel comfortable and confident when requesting adjustments. Towards this end, disability services professionals, and other postsecondary personnel who work with students with LD, should advocate for practices that facilitate acceptance of reasonable accommodations and course alternatives. Bigaj, et al. (1999), for example, found that pre-service and in-service faculty development experiences were positively related to faculty willingness to implement accommodations. Brinckerhoff, McGuire, and Shaw (2002) suggested that effective faculty development efforts should include topics such as legal issues, instructional strategies, and appropriate use of accommodations. The importance of faculty development efforts is supported by a large body of literature (e.g., Adsamit, Morris, & Leuenberger, 1987; Satcher, 1992; Thompson, Bethea, & Turner, 1997; Rose, 1993).

Programs that enhance self-advocacy skills in postsecondary students with LD can also act as a catalyst for positive faculty attitudes toward accommodations. Students who learn to approach faculty to request accommodations with confidence and an appropriate level of assertiveness are more likely to encounter positive responses and set the stage for future students to experience positive faculty perceptions. The importance of self-advocacy among postsecondary students with LD is emphasized by a variety of researchers and practitioners in the field including Brinckerhoff, et al., 2002; Bresette, Durlak, Rose, & Bursuck, 1994; Greene, Moore, Palmer, Prysock, Walker, & Whitaker, 1994; Brinckerhoff, 1994; and Skinner, 1998.

It is also important for disability service personnel, students, and other advocates for students with LD to recognize that some academic adjustments may actually present an unfair advantage and should not be used. In the present study, for example, faculty were *unwilling* to providing the opportunity for extra credit, when this option was not available for other students. Under these circumstances, extra credit could indeed be considered an *unreasonable* accommodation. Advocating for such adjustments serves only to increase the probability that faculty will harbor negative views of other accommodations. It is imperative for disability service personnel to make a strong match between course of study, individual student characteristics, and required accommodations. Accurate matches among these variables validate services provided by offices of disability services and increase the probability of willing acceptance of accommodations and course alternatives among faculty.

Similarly, academic adjustments should also be considered within the context of differences in skills and competencies needed for specific disciplines. In the present study, for example, faculty from the School of Business disagreed with providing course alternatives to mathematics and foreign language requirements and were less willing than other academic schools to provide accommodations. It is important to remember, however, that many majors in business, such as accountancy, require competency in mathematics for success on entry-level examinations and eventual successful performance in the field. Furthermore, some majors offered at the institution used in the present study, such as inter-modal transportation, require, if not the actual ability to speak a foreign language fluently, an understanding of diverse cultures. Understanding of cultures other than our own is cultivated in foreign language courses in a way that may not be duplicated by course alternatives. Although supporting course substitutions as a one possible means of accommodating students with LD, some authors suggest the option of offering alternative mathematics or foreign language sections of courses designed to meet the needs of students with specific learning disabilities. Research and experience to date suggest that students experience success in these courses while gaining many of the skills and insights gained by their non-disabled peers (Black, Brinckerhoff, & Truba, 1995; Ganschow, Philips, & Schneider, 2001; Skinner, 2002; Sparks, Ganschow, & Javorsky, 1992; Sparks & Javorsky, 2000).

Finally, a well-organized and supportive disability services office is essential to the successful implementation of all academic adjustments. As Brinkerhoff, Shaw, and McGuire (1992) emphasized, a sound working relationship is necessary among disability services personnel, faculty, and

administration. Such an arrangement is particularly important in light of Bouke et al.'s (2000) findings that indicated a positive relationship between faculty support for accommodations and perceived level of faculty support from disability services and academic departments. This is especially true for situations wherein legitimate but labor-intensive accommodations, such as alternative test formats, are required (Bourke et al., 2000; Heyward & Lawton, 1995).

Limitations And Future Research Needs

The present study was completed at a mid-size, liberal arts institution with a comprehensive office of disability services. As is true with any study of this nature, characteristics unique to a specific setting require one to generalize to other settings with caution.

Fifty-two percent of the faculty (i.e., 253) returned surveys. Although the return rate was considered adequate to produce a representative sample, the original goal was a 60% to 70%. More returned surveys would have provided a firmer foundation for representation of the population and, consequently, increased confidence in the generality of results. Specific groups with particularly low return rates included faculty from the schools of business and the arts. Also, relatively few faculty at the rank of *instructor* responded to the survey.

Level of agreement with providing alternatives to mathematics and foreign language courses was tapped with only one question. Narrative remarks from several faculty indicated that perceptions may differ as a function of discipline. Several respondents from the School of Business, for example, indicated a higher level of acceptance for foreign language alternatives as compared with mathematics. The instrument used in this study did not allow differentiation between these two course alternatives.

Future research should focus on generating longitudinal data. We need to determine if faculty perceptions of and willingness to provide academic adjustments are changing over time in a positive direction as disability service personnel provide more comprehensive services, including faculty development efforts. Other research needs include validating accommodations and course substitutions for specific programs of study and individual student characteristics. Our overriding goal should be a high degree of faculty willingness to provide *reasonable* academic adjustments to students with documented learning disabilities. Harkening back to the vignettes described at the outset, Sarah's story should be the rule and not the exception among faculty in postsecondary settings.

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